UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/788,510	02/27/2004	Muhammad Chishti	018563-004920US	7442

20350 7590 08/23/2004

TOWNSEND AND TOWNSEND AND CREW, LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

EXAMINER	
WILSON, JOHN J	

ART UNIT	PAPER NUMBER
3732	

DATE MAILED: 08/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/788,510	CHISHTI ET AL.	
	Examiner	Art Unit	
	John J. Wilson	3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 February 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *4/19/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. ____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 20-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 20, line 2, "the computer representation" lacks proper antecedent basis.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Kurz (4348178). Kurz teaches that it is known to make an appliance using a model of the teeth in a position, column 1, lines 15-40, and that the present invention of Kurz makes use of such tooth positioner mouth pieces, column 1, lines 50-51, and further teaches using a plurality of such mouth pieces, column 3, lines 22-47. The disclosed model of teeth of Kurz is inherently predetermined by the position of the patient's teeth used to make the positioner.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurz (4348178). Kurz teaches that it is known to make an appliance using a model of the teeth in a position, column 1, lines 15-40, and that the present invention of Kurz makes use of such tooth positioner mouth pieces, column 1, lines 50-51, and further teaches using a plurality of such mouth pieces, column 3, lines 22-47. The disclosed model of teeth of Kurz is inherently predetermined by the position of the patient's teeth used to make the positioner. Kurz further teaches a method of using a model to generate one appliance and teaches using a plurality of such appliances, therefore, it would be obvious to one of ordinary skill in the art to use a model when generating each of the plurality of appliances. The change for each positioner is inherently predetermined by the position of the patient's teeth when making the models. As to claim 3, the plaster models of Kurz are held to be casts made from molds as is known in the art.

Claims 4-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurz (4348178) as applied to claims 1-3 above, and further in view of Acevedo (3983628). Kurz does not show using an ideal set of teeth. Acevedo teaches that it is known to use an ideal arch when calculating desired positions for teeth, column 4, lines 16-27. It would be obvious to one of ordinary skill in the art to modify Kurz to include the use of an ideal set of teeth as shown by Acevedo in order to better obtain the desired prescription for moving teeth. As to claim 5, Kurz teaches the use of models, which is well known in the art to use with articulators to best determine bite and proper tooth position, however, does not show using a masticatory system.

Acevedo teaches using a maticatory system in the form of an articulator to register models. It would be obvious to one of ordinary skill in the art to modify Kurz to include a mastictory system as shown by Acevedo to better determine the desired position of the teeth. As to claims 6 and 7, the use of X-ray and computer tomography are conventional in the art, see the present disclosure, paragraph [0044], and therefore, would be obvious to the skilled artisan for determining occlusion. As to claim 9, the motion of the articulator of Acevedo is inherently applying kinematics. As to claim 10, the motion of the articulator of Acevedo is inherently constrained as shown. As to claims 11-13, avoiding and minimizing undesirable contacts would be obvious in order to best move the teeth to one of ordinary skill in the art. As to claim 14, the method of determining undesirable contacts is an obvious matter of choice in calculations used by the skilled artisan. As to claim 15, to call the motions allowed by an articulator a "library" is an obvious matter of choice in terminology to one of ordinary skill in the art. As to claims 16 and 17, it is well known to simulate protrusive and lateral motions on an articulator.

Claims 20-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurz (4348178) in view of Acevedo (3983628) as applied to claim 5 above, and further in view of Duret et al (4611288). The above combination does not show using computer models, scanning and the use of features. Duret teaches using computer models to determine occlusion, using scanning, Figs. 10-13, and using features, column 6, lines 3-8. It would be obvious to one of ordinary skill in the art to modify the above combination to include the use of digital methods as shown by Duret in order to best model the teeth. The above teaching of Kurz to make plural appliances, implies that a new prescription is needed for each.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-24 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-29 of U.S. Patent No. 5,975,893. Although the conflicting claims are not identical, they are not patentably distinct from each other because it would have been obvious to one of ordinary skill in the art to model teeth to obtain the desired tooth positions as is well known in the art.

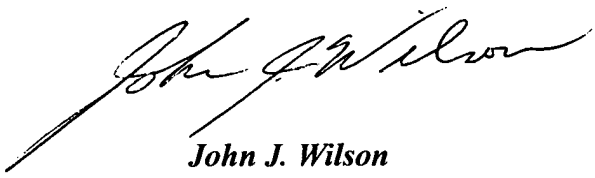
Claims 1-24 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-48 of U.S. Patent No. 6,450,807. Although the conflicting claims are not identical, they are not patentably distinct from each other because it would have been obvious to one of ordinary skill in the art to not determine occlusion.

Drawings

The drawings filed February 27, 2004 have been found to be acceptable by the examiner.

Conclusion

Any inquiry concerning this communication should be directed to John Wilson at telephone number (703) 308-2699.



John J. Wilson
Primary Examiner
Art Unit 3732

jjw
August 20, 2004
Fax (703) 872-9306
Work Schedule: Monday through Friday, Flex Time